Potential Approaches to Target Setting

April 7, 2009
Air Resources Board

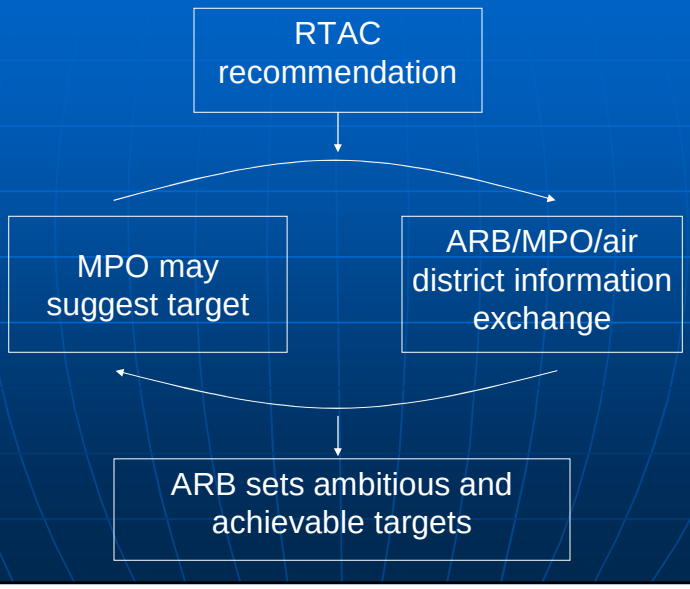
1

Statutory Requirements

- ARB will estimate the benefits of vehicle technology and low carbon fuels for both the setting and the meeting of targets
  Government Code § 65080(b)(2)(A)(v)
- Regional targets will be expressed in terms of greenhouse gas emission reductions…
  Government Code § 65080(b)(2)(A)(v)
- But targets must reflect underlying land use changes and improved transportation
  SB 375 § 1(c) & Government Code § 65080(b)(2)(B)

2

SB 375 Target-Setting Process



3

Potential Target-Setting Approach

- Build on existing regional Blueprint and RTP modeling process
- Factor in empirical data to ensure models adequately reflect full spectrum of possible strategies
- Compare to empirical studies to assess if both ambitious and achievable

4

Blueprint Process

- Provides multiple scenarios to compare the amount of change
- Greenhouse gases are one of multiple factors in the process
- Good cross-spectrum approach to regional planning and target-setting if goals are ambitious

5

Applying the Process

- Regions are at different points in the process
- Placeholder targets being used today
- Need to look at various blueprint scenarios and other data to identify ambitious and achievable targets
- Comparison to empirical studies needed to determine if scenarios provide maximum benefit

6

Target-Setting Metric

1. Should a target be expressed as a relative percent reduction or an absolute reduction?
2. Should a target be regional or per capita?
3. If emissions are unit based, than what type of unit? (per capita, per household, per driver)

7

Target-Setting Metric cont.

4. Should emission reductions be compared against current practice today or current practice projected into the future?

5. Should reduction targets focus on growth alone or on existing development plus growth?

8

Target-Setting Metric cont.

6. How should interregional trips be accounted for?
   - Assigned to trip origination
   - Assigned to trip destination
   - Split between trip origination and destination

9

Agency Roles in Air Quality Emissions Modeling

- ARB (EMFAC)
  - Emissions estimates for SIPs and regulatory actions
- MPO/COG
  - Vehicle activity
  - Conformity analyses
- Caltrans
  - Statewide vehicle activity
  - Conformity analyses

10

Air Quality Emissions Modeling --EMFAC--

- Vehicle fleet data from DMV records
- Emissions characteristics from laboratory and field testing
- VMT and speed estimates from transportation agencies
- Motor vehicle emissions "budget" links transportation plans with air quality plans

11